### SECTION 016000 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
  - 1. Division 01 Section "References" for applicable industry standards for products specified.
  - 2. Division 01 Section "Closeout Procedures" for submitting warranties for Contract closeout.
  - 3. Divisions 02 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

### 1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

### 1.4 SUBMITTALS

- A. Substitution Requests: Submit request to Architect and Owner in accordance with provisions in Part 2 "Product Substitutions" Article.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

### 1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
  - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

### 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

### B. Delivery and Handling:

- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
- 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

### C. Storage:

- 1. Store products to allow for inspection and measurement of quantity or counting of units.
- 2. Store materials in a manner that will not endanger Project structure.
- 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- 4. Store cementitious products and materials on elevated platforms.
- 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
- 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
- 7. Protect stored products from damage and liquids from freezing.
- 8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.
- D. During the construction process, meet or exceed the following minimum requirements to prevent the growth of mold and bacteria:

- 1. Keep building materials dry. Wood, porous insulation, paper, fabric, and similar absorptive materials shall be kept dry to prevent the growth of mold and bacteria. Cover these materials to prevent rain damage, and if resting on the ground, use spacers to allow air to circulate between the ground and the materials.
- 2. Replace water-damaged materials, or dry within 24 hours, due to the possibility of mold and bacterial growth. Materials that are damp or wet for more than 24 hours shallbe discarded if evidence of mold occurs.
- 3. Immediately remove materials showing signs of mold and mildew, including materials with exposed moisture stains, from the site and properly dispose of them. Replace moldy materials with new, undamaged materials.
- 4. Require that moisture sensitive materials be delivered dry and protected from the elements.
- 5. Allow for time in the construction schedule for materials to dry before they are enclosed.

### 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
  - 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  - 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
  - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
  - 3. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

### PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
  - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.

- 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- 4. Where products are accompanied by the term "as selected," Architect will make selection.
- 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
- 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
- 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.

### B. Product Selection Procedures:

- 1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
- 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
- 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
- 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
- 5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, that complies with requirements.
- 6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, that complies with requirements.
- 7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system.
- 8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.
- 9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
  - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
- 10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
  - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
  - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

### 2.2 PRODUCT SUBSTITUTIONS

- A. Substitution Requests: Subcontractor substitution requests shall be submitted by the Contractor during the subcontractor bidding period. Requests for substitutions shall be submitted not less than 10 days before bids are due. Submit three copies of each request for consideration during the bid pricing period. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles. Substitutions found acceptable will be issued by written addendum from the Architect. Contractor submitting substitutions after pricing is received will not be given additional compensation for rejected submittals.
  - 1. Substitution Request Form: Use form attached at end of Section.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified material or product cannot be provided.
    - b. Reasons why the substitution is advantageous and necessary, including the benefits to the Owner and the Work in the event the substitution is acceptable.
    - c. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate subcontractors, that will be necessary to accommodate proposed substitution.
    - d. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Requested substitution is compatible with, and has been coordinated with other portions of the Work. All sizes, dimensions, locations for connections to other items as designed, clearances from building structure and other equipment have been verified and is acknowledged in the substitution request.
    - f. If requested substitution involves more than one subcontractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all subcontractors involved.
    - g. Requested substitution does not require extensive revisions to the Contract Documents.
    - h. Samples, where applicable or requested.
    - i. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
    - j. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    - k. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
    - 1. Requested substitution provides specified warranty.
    - m. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
    - n. Cost information, including a proposal of change, if any, in the Contract Sum.
    - o. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.

- p. Requested substitution will be acceptable to local authorities having jurisdiction.
- q. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- B. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation. Architect will notify Contractor of acceptance or rejection of proposed substitution by addendum or written notification as applicable.
  - 1. Form of Acceptance: Addendum or Change Order, as applicable.
  - 2. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- C. If differences discovered later that were not identified on the substitution request are found that make the substitution unacceptable, it will be reason for rejection and replacement, regardless if the substitution has been installed, at no additional cost to the Owner.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

### SUBSTITUTION REQUEST FORM

Project:	Substitution Request Number:	·	
To:	From:	From:	
Re:	Date:	<u> </u>	
Specification Title:	Description:		
Section:Page:			
Proposed Substitution:			
	Address:Ph	one:	
Trade Name:	Model No.	<u>.</u>	
evaluation of the request: applicab required by Article 2.2 of Section	scription, specifications, drawings, and performance and ole portions of the data are clearly identified. Provide su 016000.  ription of changes to the Contract Documents that the provide su provide su contract Documents are clearly identified.	bstitution documentation	
Section 016000, and requ 3. Will coordinate installation plete with no additional condesigned, clearances from 4. Will remove substitution substitution request are for 4. Waive claims for addition	ement of, and that the substitution request is in compliar tirements contained in the General Conditions of the Coron and make changes to other Work that may be required to to Owner. All sizes, dimensions, locations for connect building structure and other equipment have been verified and pay all costs if differences discovered later that were build that make the substitution unacceptable with no additional costs or time extension that may subsequently become ad Architect for review or redesign services associated were	ntract. d for the Work to be comections to other items as fied. e not identified on the ditional cost to Owner. ne apparent.	
Submitted By:			
Signed By:		<u>.</u>	
Firm:		<u>.</u>	
Address:		<u> </u>	
Telephone:	E-Mail:	<u>.</u>	
ARCHITECTS REVIEW AND A	CTION submittals in accordance with Specification Section 013	3300	
Submission approved as notedSubmission rejected - Use spe	d - Make submittals in accordance with Specification Se		
Signed by:	Date:	<u>.</u>	
	wings Product Data Samples Tests Report	rts	